Improving indoor Air for Young Montanans

Children's Health Month - October 2005

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Helena – As part of Children's Environmental Health Month activities (October 2005), the Environmental Protection Agency (EPA), the Montana Department of Public Health and Human Services (DPPHS), and Montana Department of Environmental Quality (DEQ) have prepared a series of informational articles on the topic of children's environmental health. Part one focused on environmental health in the school setting, part two on toddler/preschool health, and part three on pre-natal/newborn health. Following is part two of the series.

Young children can spend over 90 percent of their time inside. Exposure to cigarette smoke or other indoor air pollutants such as nitrogen dioxide from gas heating and cooking appliances have been associated with increased incidence of respiratory symptoms in children. The Montana Interagency children's Environmental Health Network wants to help ensure young children have healthy indoor environments at registered day cares. This August the Child Care Licensing program provided a training for daycare inspectors on environmentally friendly daycares. The training was presented by Mike Vogel, PhD, of MSU Extension Service and Wilda McGraw, RN, of DPHHS. It provided child care home inspectors with an indoor environmental checklist and listed remedies for any areas of concern. Environmentally friendly daycares will receive a window cling letting parents know that protecting indoor is important in their business.

As well as combustion products, other items to be checked were the potential for lead exposure from indoor and outdoor paint. Lead is also found in some vinyl mini blinds. Other factors to check for are mold, dander from pets, radon, and chemical exposures from the use of herbicides/pesticides, cleaners, air fresheners, scented candles and cosmetics.

- Compared to adults, children eat proportionately more food, drink more fluids and breathe more air than adults. As a result, they are exposed to more pollutants per pound of body weight than adults.
- Children may be more vulnerable than adults to environmental hazards because their systems are still developing, often making them less able to metabolize, detoxify and excrete toxins.
- Fewer than half of the synthetic chemicals that have been developed and released to the environment have been tested for potential human toxicity, fewer still, for their potential effects on children.
- Children's behavior patterns increase their exposure to potential toxics.

 And most importantly, children are least able to protect themselves and depend on others for their safety.

Some environmental improvements can be made without added costs but day care providers must be aware of the unique exposure patterns of children and plan for a safe and healthy environment that promotes learning. Harmful exposures can result in increased respiratory illness, learning disabilities, and some products can be carcinogenic.

For a copy of the checklist or more information contact Marjean Magraw, Montana DPHHS Environmental Public Health Tracking at (406) 444-48871 or mmagraw@mt.gov